

AMENDMENTS TO THE CLAIMS

The listing of claims provided below will replace all prior versions, and listings, of claims in the application.

Listing of claims

1-26. (Canceled)

27. (New) A transport-enhancing polypeptide that enhances Cystic Fibrosis Trans-membrane conductance Regulator channel activity when present in a cell expressing a mutant Cystic Fibrosis Trans-membrane conductance Regulator channel, said polypeptide comprising an internalizing peptide operably linked to a Cystic Fibrosis Trans-membrane conductance Regulator polypeptide in which amino acid residue 508 of a 1480 amino acid wild type Cystic Fibrosis Trans-membrane conductance Regulator protein is deleted.

28. (New) The transport-enhancing polypeptide of claim 27 wherein the Cystic Fibrosis Trans-membrane conductance Regulator polypeptide comprises a nucleotide binding domain 1 of the wild type Cystic Fibrosis Trans-membrane conductance Regulator protein.

29. (New) The transport-enhancing polypeptide of claim 27, wherein the Cystic Fibrosis Trans-membrane conductance Regulator polypeptide comprises a regulatory domain of the wild type Cystic Fibrosis Trans-membrane conductance Regulator protein.

30. (New) The transport-enhancing polypeptide of claim 27, wherein the Cystic Fibrosis Trans-membrane conductance Regulator polypeptide comprises the nucleotide binding domain 1 and the regulatory domain of the wild type Cystic Fibrosis Trans-membrane conductance Regulator protein.
31. (New) The transport-enhancing polypeptide of claim 27, wherein the Cystic Fibrosis Trans-membrane conductance Regulator polypeptide comprises amino acid residues 444-841, but where amino acid residue 508 is deleted, of the wild type Cystic Fibrosis Trans-membrane conductance Regulator protein.
32. (New) The transport-enhancing polypeptide of any one of claims 27, 28, 29, 30, or 31, which further comprises a secretion leader sequence.
33. (New) The transport-enhancing polypeptide of claim 27 wherein the internalizing peptide is selected from the group consisting of SEQ ID NOS:1-19 AND SEQ ID NO:20.
34. (New) The transport-enhancing polypeptide of claim 27 wherein the internalizing peptide is SEQ ID NO:2.
35. (New) A transport-enhancing polypeptide comprising (i) an internalizing peptide; (ii) a nucleotide binding domain 1 of a human Cystic Fibrosis Trans-membrane conductance Regulator protein and (iii) a regulatory domain of a human Cystic Fibrosis Trans-membrane conductance Regulator protein, which enhances Cystic Fibrosis Trans-membrane conductance Regulator channel activity when present in a cell expressing a mutant Cystic Fibrosis Trans-membrane conductance Regulator.

36. (New) The transport-enhancing polypeptide of claim 35, wherein the Cystic Fibrosis Trans-membrane conductance Regulator polypeptide comprises amino acid residues 444-841 of the human Cystic Fibrosis Trans-membrane conductance Regulator protein.
37. (New) The transport-enhancing polypeptide of claim 35 or 36, which further comprises a secretion leader sequence.
38. (New) The transport-enhancing polypeptide of claim 35 wherein the internalizing peptide is selected from the group consisting of SEQ ID NOS:1-19 and SEQ ID NO: 20.
39. (New) The transport-enhancing polypeptide of claim 35 wherein the internalizing peptide is SEQ ID NO:2.